

REMARKS

Claim 1 stands rejected under 35 USC §112, second paragraph, as being indefinite. The Examiner finds that, in the second to last paragraph, the applicant appears to be claiming two separate anvil cylinders. Further, the Examiner finds it unclear as to which cylinders are moving horizontally and vertically in reference to other cylinders.

Claim 1 has been amended extensively in a manner that is believed to overcome the indefiniteness rejection. Claim 1 is generic to all disclosed embodiments of the invention. In the preferred embodiments (Figs 1-15), one of the die cylinders (e.g. 13) is subject to horizontal linear movement relative to the other two cylinders (namely, the anvil cylinder 12 and the other die cylinder 11); whereas, in the embodiments of Figs. 16-19, the anvil cylinder (e.g. 41) is subject to horizontal linear movement with respect to both die cylinders (35 and 36). It is believed that original claim 1, which was drafted using the conjunctive “and” to recite the above described alternate arrangements, would be more clear if amended to use the disjunctive “or” to describe these alternate arrangements. Claim 1 has been so amended. In particular, the second to last paragraph of claim 1 now recites that either the anvil cylinder 12 or one of the die cylinders 11 or 13 is supported for horizontal linear movement with respect to the remaining cylinders, namely, a pair of die cylinders 11 and 13 or the anvil cylinder 12 and the other of the die cylinders (11 or 13).

It is respectfully submitted that the disjunctive format of amended claim 1 is appropriate for the present invention in order to retain its generic scope and to meet the Examiner’s indefiniteness rejection.

Claim 2 stands rejected under 35 USC §112, second paragraph, as being indefinite, the Examiner finding that the second paragraph of claim 2 is unclear as to whether the claim is reciting that the anvil cylinder moves vertically with the operative die cylinder or moves vertically relative to the operative die cylinder.

Claim 2 has been amended to more clearly recite that the anvil cylinder moves “together” with the operative die cylinder. This amendment is believed to fully address and resolve the indefiniteness rejection.

Claim 1 stands rejected under 35 USC §102(b) as anticipated by U.S. 5,001,950 (Fokos). Fokos is cited as disclosing a rotary die cutter assembly (10) with a vertical support (14) and rectilinear translation arrangements (40, 60), the die cutter assembly having an anvil cylinder (18) and two die cylinders (20) alternately or simultaneously operable with the anvil cylinder. The arrangement also includes a supporting base (14) with the anvil cylinder (18) supported at axial opposite ends by bearing assemblies (21). The pair of die cylinders (20) are supported at axial opposite ends by bearing blocks (44). Horizontal linear movement of one of the die cylinders (20) on the supporting base relative to the anvil cylinder (18) and the other of side die cylinders (20) occurs through rotation of one hand wheel (66). Vertical linear movement of one of the die cylinders (20) between an operative position and a standby position occurs through rotation of hand wheel (52). In the operative position, at least one of the die cylinders (20) may be vertically aligned with the anvil cylinder (18) and supported on the supporting base (14).

The foregoing rejection is respectfully traversed and reconsideration thereof is requested in view of the amendment to claim 1 above and the comments which follow.

In Fokos ‘950, the only disclosed horizontal movement of either of the die cylinders (20) is along their common axis. This axial movement is transverse to the direction of movement of the web W through the die cutter or transverse to the “machine direction”, a term commonly used in the industry.

Referring to Fig. 3 of Fokos, and the specification beginning in line 24 of column 6, the horizontal movement in the machine direction indicated by the arrow 38 refers only to movement of one of the wedges 36b. As stated in the specification, “[T]he wedge 36b, however, is movable laterally in the direction of arrow 38, which produces a uniform change in the vertical position of a bed plate 40 with respect to the spreader 16.”

This movement is to adjust the position of die roll mounting assembly 22 vertically and not horizontally, and in particular, not horizontally in the machine direction.

In the apparatus of the present invention, repositioning of the die cylinders (e.g. 11 and 13) between an operative position and a stand-by position is accomplished by horizontal linear movement “in the machine direction” of either one of the die cylinders or the anvil cylinder 12. This repositioning movement of one of the cylinders in the machine direction is completely absent in Fokos. Specifically, Fokos discloses neither horizontal movement of one die cylinder with respect to the other in the machine direction nor horizontal movement of a die cylinder with respect to the anvil cylinder in the machine direction.

In accordance with applicants’ invention, the above described horizontal movement in the machine direction results in a compact arrangement that permits rapid die cylinder change and, in the preferred embodiment, also provides support that assures that shock loads are directed vertically downwardly into the support base, instead of to adjacent equipment.

The amendment to claim 1 above includes, in the preamble, a definition of the “machine direction” to support the addition of this feature into the body of amended claim 1, as well as amended dependent claims 2 and 9.

Claim 2 stands rejected under 35 USC §103(a) as obvious over Fokos, in view of U.S. 6,086,694 (Winter). Winter is cited, in combination with Fokos, for its teaching of the use of hand wheels (372) for the purpose of vertical adjustment of the anvil cylinder.

This rejection is respectfully traversed in view of the amendment to claims 1 and 2, and for the reasons set forth above with respect to claim 1. Specifically, Winter discloses no ability to provide relative horizontal movement in the machine direction of the anvil cylinder or one of the die cylinders with respect to the remaining two cylinders. Thus, Winter does not provide the deficiency in the teaching of Fokos.

Appln. No. 10/714,316
Amdt dated December 13, 2005
Reply to Office Action of August 2, 2005

Claim 9 stands rejected under 35 USC §103(a) as being obvious over Fokos in view of U.S. 5,388,490 (Buck). The Examiner cites Buck for teaching the use of an anvil cylinder (28) having a lateral adjustment device (44) for the purpose of horizontal adjustment.

This rejection is also respectfully traversed.

It is clear that the horizontal adjustment of the anvil cylinder (28) in Buck is in the cross machine direction or along the axis of the anvil cylinder (28). Specifically, in column 8, beginning in line 9 of Buck, it is stated that “the anvil 28 and its journals 32 can be adjusted in the horizontal direction, along the central axis of the anvil, by a lateral adjustment device 44”.

As indicated above, claim 9 has been amended in a manner similar to claim 2 to specifically recite independent horizontal linear movement “in the machine direction”.

Each of rejected claims 1, 2 and 9 has been amended to recite the unique horizontal linear movement in the machine direction which is neither shown nor suggested in any of the prior art patents applied by the Examiner.

Applicants have also reviewed the prior art made of record, but not relied upon by the Examiner, namely, U.S. 4,188,815 (Mizushima); U.S. 4,252,044 (Yamashita); U.S. 4,413,541 (Biggar); and U.S. 4,976,676 (Mensing). None of these references teaches or suggests the unique feature of applicants’ support and translation arrangement whereby the anvil cylinder or one of the pair of die cylinders is moved horizontally in the machine direction relative to the other two as part of the die cylinder exchange function.

Applicants gratefully acknowledge the indication of allowability of claims 3-8 and 10-16. However, amended claims 1, 2 and 9 are also now believed to be

Appln. No. 10/714,316
Amdt dated December 13, 2005
Reply to Office Action of August 2, 2005

allowable. Therefore, all of claims 1-16 are now believed to be in condition and further favorable action is respectfully requested.

Respectfully submitted,

ANDRUS, SCEALES, STARKE & SAWALL, LLP

A handwritten signature in black ink, appearing to read "Joseph J. Jochman". The signature is fluid and cursive, with a long horizontal stroke at the end.

Joseph J. Jochman
Reg. No. 25,058

100 East Wisconsin Avenue, Suite 1100
Milwaukee, Wisconsin 53202
Telephone No. (414) 271-7590
Attorney Docket No.: 4864-00020